

Amendments to the Claims:

Claims 1-16 are pending in the application.

Claims 1-16 have been amended.

New Claims 17-20 have been added. A fee transmittal form and the appropriate fee for one additional independent claim, are enclosed. No new matter has been added.

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Amended) An isolated polypeptide ~~sequence~~ comprising the amino acid sequence of SEQ ID NO:1 with at least ~~one~~ two amino acid substitution at a two ~~locations~~ selected from the group consisting of ~~L31, N34, F35, 138, L42, 148, V49, and L52~~ Leu-9, Asn-12, Phe-13, Ile-16, Leu-20, Ile-26, Val-27, and Leu-30.
2. (Amended) The isolated polypeptide ~~sequence~~ of claim 1, wherein the substitutions ~~is~~ are with a non-hydrophobic amino acid.
3. (Amended) The isolated polypeptide ~~sequence~~ of claim 1, wherein the substitutions ~~is~~ are with an amino acid selected from the group consisting of alanine and glycine.
4. (Amended) The isolated polypeptide ~~sequence~~ of claim 3, wherein substitutions are made at ~~L31 and N34~~ Leu-9 and Asn-12.
5. (Amended) The isolated polypeptide ~~sequence~~ of claim 1, wherein the polypeptide is linked to a compound to be targeted to a sarco(endo)plasmic region of a cell.
6. (Amended) The isolated polypeptide ~~sequence~~ of claim 1, wherein the polypeptide is linked to a macromolecule to be targeted to a sarco(endo)plasmic region of a cell.
7. (Amended) The isolated polypeptide ~~sequence~~ of claim 4, wherein the polypeptide is linked to a macromolecule or compound to be targeted to a sarco(endo)plasmic region of a

cell.

8. (Amended) An isolated polypeptide ~~sequence~~ comprising the amino acid sequence of SEQ ID NO:2.

9. (Amended) The isolated polypeptide ~~sequence~~ of claim 8, wherein the polypeptide is linked to a compound to be targeted to a sarco(endo)plasmic region of a cell.

10. (Amended) The isolated polypeptide ~~sequence~~ of claim 7 8, wherein the polypeptide is linked to a macromolecule to be targeted to a sarco(endo)plasmic region of a cell.

11. (Amended) An isolated nucleic acid comprising a nucleotide sequence encoding the polypeptide sequence of SEQ ID NO:1 with at least ~~one~~ two codon substitutions encoding an amino acid substitution at ~~an~~ two amino acid locations selected from the group consisting of ~~L31, N34, F35, I38, L42, 148, V49, and L52~~ Leu-9, Asn-12, Phe-13, Ile-16, Leu-20, Ile-26, Val-27, and Leu-30.

12. (Amended) The isolated nucleic acid of claim 11, wherein the codon substitutions encodes a non-hydrophobic amino acid

13. (Amended) The isolated nucleic acid of claim 11, wherein the codon substitutions encodes an amino acid selected from the group consisting of alanine and glycine.

14. (Amended) The isolated nucleic acid of claim 11, wherein the nucleotide sequence is linked to a second nucleotide sequence encoding a protein to be targeted to a sarco(endo)plasmic region of a cell.

15. (Amended) An isolated nucleic acid comprising a nucleotide sequence selected from nucleotide sequences represented by SEQ ID NOS:3, SEQ ID NO:4, SEQ ID NO:5, and SEQ ID NO:6.

16. (Amended) The isolated nucleic acid of claim 15, wherein the nucleotide sequence is linked to a second nucleotide sequence encoding a protein to be targeted to a sarco(endo)plasmic region of a cell; or wherein the nucleotide sequence is linked to a compliment of a second nucleotide sequence encoding a protein to be targeted to a sarco(endo)plasmic region of a cell.

17. (New) A sarco(endo)plasmic localization signal, for targeting a compound or a macromolecule to the sarco(endo)plasmic region of a cell, comprising an isolated polypeptide comprising the amino acid sequence of SEQ ID NO:1 with at least one amino acid substitution at a location selected from the group consisting of Leu-9, Asn-12, Phe-13, Ile-16, Leu-20, Ile-26, Val-27, and Leu-30.

18. (New) The sarco(endo)plasmic localization signal of claim 17, wherein the substitution is with a non-hydrophobic amino acid.

19. (New) The sarco(endo)plasmic localization signal of claim 1, wherein the substitution is with an amino acid selected from the group consisting of alanine and glycine.

20. (New) The sarco(endo)plasmic localization signal of claim 3, wherein substitutions are made at Leu-9 and Asn-12.